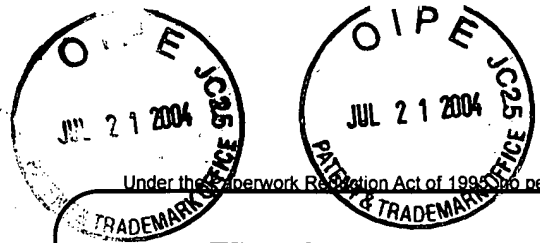


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PTO/SB/21 (02-04)

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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)		Application Number	10/039,799
		Filing Date	January 4, 2002
		First Named Inventor	James Bruce Pitner
		Art Unit	1654
		Examiner Name	Teller, R.
Total Number of Pages in This Submission		Attorney Docket Number	0709.018.0002

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Todd B. Buck (Reg. No. 48,574) Castellano, Malm, Ferrario & Buck
Signature	
Date	July 21, 2004

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Atty. Dkt. No. 0709.018.0002

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Pitner *et al.*

Appl. No. 10/039,799

Filed: January 4, 2002

For: Binding Protein as Biosensors

Art Unit: 1654

Examiner: Teller, R.

Atty. Docket: 0709.018.0002

**Reply and Amendment under 37 C.F.R. §§1.111 and 1.121**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This reply and amendment is submitted under 37 C.F.R. §§1.111 and 1.121 and is responsive to the Office Action mailed April 22, 2004.

**Amendments**

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A biosensor comprising:

- a) at least one mutated binding protein and at least one thiol group attached thereto; and
- b) at least one sensor surface wherein said mutated binding protein is coupled through said thiol group to said surface;

wherein said at least one sensor surface provides a detectable signal resulting from a change in refractive index when said mutated binding protein binds to analyte.